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Group Art Unit: 1744

In the Claims:

1. (Cancelled)

2. (Cancelled)

3. (Cancelled)

4. (Currently amended) The ~~An~~ extraction surface cleaning apparatus having:
a housing;

at least two wheels mounted to the housing for supporting the housing for movement
along a surface to be cleaned;

5 a liquid dispensing system mounted to the housing and including:

_____ a liquid dispensing nozzle for applying a cleaning fluid to the surface to be
cleaned;

_____ a fluid supply chamber for holding a supply of cleaning fluid;

_____ a fluid supply conduit fluidly connected to the fluid supply chamber and to the

10 dispensing nozzle for supplying liquid to the dispensing nozzle;

a fluid recovery system mounted to the housing and including:

_____ a recovery chamber for holding recovered fluid,

_____ a suction nozzle,

_____ a working air conduit extending between the recovery chamber and the suction

15 nozzle; and

_____ a vacuum source in fluid communication with the recovery chamber for
generating a flow of working air from the suction nozzle through the working air conduit and
through the recovery chamber to thereby draw dirty liquid from the surface to be cleaned through
the suction nozzle and the working air conduit, and into the recovery chamber;

20 a detector mounted on the housing for sensing the speed of the housing across the surface
being cleaned and for generating a speed signal representative thereof;

an output device mounted on the housing and coupled to the detector for displaying or
audibly expressing the relative speed of the housing across the surface being cleaned;

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wherein the detector is aligned with and adjacent to one of the at least two wheels and is adapted to detect the rotational motion of the one of the at least two wheels without physically contacting the wheel; and

a first disk portion mounted to the one of the at least two wheels for rotation therewith; and wherein the detector is aligned with and adjacent to the first disk portion adapted to generate a speed signal representative of the rotation of the first disk portion;

the improvement comprising:

~~of claim 3~~ wherein the first disk portion has alternating opposite-polarity magnetic segments thereon and the ~~second pick-up portion detector~~ is adapted to ~~detect~~ sense the rotational speed of the first disk portion by detecting changes in the magnetic polarity of a particular segment of the first disk portion ~~located adjacent to the second pick-up portion.~~

5. (Currently amended) The extraction surface cleaning apparatus of claim 4 wherein the output device comprises a converter interconnected with the detector and adapted to change the speed signal from the detector into a visual indicator of the speed of the housing across the ~~floor~~ surface.

6. (Original) The extraction surface cleaning apparatus of claim 5 wherein the visual indicator comprises at least one light-emitting diode that emits light representative of the speed signal received from the detector.

7. (Original) The extraction surface cleaning apparatus of claim 6 wherein the at least one light-emitting diode comprises a series of light-emitting diodes wherein output device illuminates a particular number of the series of light-emitting diodes proportional to the speed signal received from the detector.

8. (Currently amended) An extraction surface cleaning apparatus having:
an extraction housing including a suction nozzle adapted to be moved along a floor surface to be cleaned;
a handle pivotaly mounted to the extraction housing for grasping by a user and
5 propelling the extraction housing over the floor surface;

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a cleaning fluid delivery system interconnected with the extraction housing and movable therewith to apply a cleaning solution to the floor surface;

a fluid recovery system interconnected with the extraction housing to recover soiled cleaning solution from the floor surface;

10 a detector mounted to the extraction housing for detecting the relative speed of the extraction housing relative to the floor surface and for generating a signal representative of the detected speed; and

an output device operably interconnected with the detector, adapted to receive the signal generated by the detector and to indicate to ~~a~~the user the detected relative speed of the
15 extraction housing.

9. (Currently amended) The extraction surface cleaning apparatus of claim 8 wherein the ~~indicator-output device~~ is mounted to the handle.

10. (Currently amended) The extraction surface cleaning apparatus of claim 9 wherein the indicator is mounted in a line of sight of ~~a~~the user between a position behind the handle and the extraction housing.

11. (Cancelled)

12. (Original) The extraction surface cleaning apparatus of claim 8 wherein the fluid delivery and fluid recovery systems are carried on the extraction housing.

13. (Currently amended) The extraction surface cleaning apparatus of claim 8 and further comprising at least two wheels mounted to the extraction housing, and wherein the detector is aligned with and adjacent to one of the at least two wheels and is adapted to detect the rotational motion of the one of the at least two wheels without physically contacting the wheel.

14. (Currently amended) The extraction surface cleaning apparatus of claim 13 ~~wherein the detector and further comprises~~ a first disk portion mounted to the one of the at least two wheels for rotation therewith; and ~~a second pick-up portion fixedly mounted to the housing~~ the detector is aligned with and adjacent to the first disk portion and is adapted to
5 generate a speed signal representative of the rotational speed of the first disk portion.

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15. (Currently amended) The extraction surface cleaning apparatus of claim 14 wherein the first disk portion has alternating opposite-polarity magnetic segments thereon and the ~~second pick-up portion detector~~ is adapted to detect the rotational speed of the first disk portion by detecting changes in the magnetic polarity of a particular segment of the first disk portion located adjacent to the ~~second pick-up portion detector~~.

16. (Original) The extraction surface cleaning apparatus of claim 15 wherein the output device comprises a converter interconnected with the detector and adapted to change the speed signal from the detector into a visual indicator of the speed of the housing across the floor.

17. (Original) The extraction surface cleaning apparatus of claim 16 wherein the visual indicator comprises at least one light-emitting diode that emits light representative of the speed signal received from the detector.

18. (Currently amended) The extraction surface cleaning apparatus of claim 17 wherein the at least one light-emitting diode comprises a series of light-emitting diodes wherein the output device illuminates a particular number of the series of light-emitting diodes proportional to the speed signal received from the detector.

19. (Cancelled)

20. (Currently amended) A ~~The~~ method of cleaning a floor surface with an extraction cleaner according to claim ~~19-23~~ wherein the communicating step comprises generating a visual signal.

21. (Currently amended). A ~~The~~ method of cleaning a floor surface with an extraction cleaner according to claim ~~19-23~~ wherein the communicating step comprises generating an audible signal.

22. (Cancelled)

23. (Currently amended) A method of cleaning a floor surface with an extraction cleaner comprising the steps of:

moving the extraction cleaner across the floor surface;

depositing a cleaning solution from the extraction cleaner on the floor surface;

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- 5 recovering soiled cleaning solution from the floor surface with the extraction cleaner;
- detecting the relative speed of the extraction cleaner with respect to the floor surface and
generating a speed signal;
- ~~The method of claim 19 and further comprising the step of generating a predetermined~~
10 reference signal of a desired speed of the extraction cleaner; and
comparing the reference signal to the speed signal; and-
communicating to a user an indication of whether the detected relative speed of the
extraction cleaner is above or below the desired speed of the extraction cleaner.
24. (Currently amended) The method of claim 23 and further comprising the step of alerting ~~a~~ the user if the difference between the reference signal and the speed signal exceeds a predetermined threshold.
25. (New) An extraction surface cleaning apparatus having:
a housing;
at least two wheels mounted to the housing for supporting the housing for movement
along a surface to be cleaned;
- 5 a liquid dispensing system mounted to the housing and including:
a liquid dispensing nozzle for applying a cleaning fluid to the surface to be
cleaned;
a fluid supply chamber for holding a supply of cleaning fluid;
a fluid supply conduit fluidly connected to the fluid supply chamber and to the
10 dispensing nozzle for supplying liquid to the dispensing nozzle;
a fluid recovery system mounted to the housing and including:
a recovery chamber for holding recovered fluid,
a suction nozzle,
a working air conduit extending between the recovery chamber and the suction
15 nozzle; and

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a vacuum source in fluid communication with the recovery chamber for generating a flow of working air from the suction nozzle through the working air conduit and through the recovery chamber to thereby draw dirty liquid from the surface to be cleaned through the suction nozzle and the working air conduit, and into the recovery chamber;

20 a detector mounted on the housing for sensing the speed of the housing across the surface being cleaned and for generating a speed signal representative thereof; and

an output device mounted on the housing and coupled to the detector for receiving the speed signal, the output device further having a display that indicates a predetermined optimum cleaning speed for the extraction surface cleaning apparatus across the surface and wherein the
25 output device is adapted to display an indication of whether the relative speed of the housing across the surface being cleaned is above or below the predetermined optimum cleaning speed.